



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/683,376	12/19/2001	Robert W. Droege	24-NS-6049	7708

23465 7590 07/17/2003

JOHN S. BEULICK  
C/O ARMSTRONG TEASDALE, LLP  
ONE METROPOLITAN SQUARE  
SUITE 2600  
ST LOUIS, MO 63102-2740

EXAMINER

KEITH, JACK W

ART UNIT

PAPER NUMBER

3641

DATE MAILED: 07/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/683,376

Applicant(s)

Droege

Examiner

Jack Keith

Art Unit

3641



-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Jun 25, 2003
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-19 and 26-30 is/are pending in the application.
- 4a) Of the above, claim(s) 7-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6 and 26-30 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some\* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s). \_\_\_\_\_ 6) ☐ Other:

Art Unit: 3641

## DETAILED ACTION

### *Request for Continued Examination*

1. The request filed on 6/25/2003 for a Request for Continued Examination (RCE) under 37 CFR 1.114 based on parent Application No. 09/683,376 is acceptable and a RCE has been established. An action on the RCE follows.

### *Response to Arguments*

2. Applicant's arguments filed 6/25/2003 have been fully considered.

As previously set forth in Paper no. 12 the mode of operation (i.e., first mode and second mode) is not defined by the claim language. The recited limitations (i.e., first mode and second mode) do not define actual plant operating conditions (i.e., start up, normal ops, shut down, casualty ops, maintenance ops, etc.). Thus, while the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See In re Van Geuns, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993). Accordingly, interpretation of the claims to their reasonably broadest interpretation is proper.

Applicant argues that Hench ('716) does not disclose a system operating in a first mode wherein the first mode comprising a predetermined configuration of valves, dampers, motors and pumps, and switching the system to a second mode without going to standby mode, the second

Art Unit: 3641

mode comprising a predetermined configuration of valves, dampers, motors and pumps different from the first mode.

The examiner disagrees. As previously set forth Hensch discloses a safety monitoring system capable of meeting applicant's claimed inventive concept. Note that applicant's claims are broad. As such the interpretation of the claims set forth below reads on applicant's claims.

Hensch discloses a method of operating a nuclear reactor power plant system in a first mode and switching from a first mode to a second mode without going to standby. These modes 1-6 are set forth on the display panel of figure 3, the modes comprising residual heat removal, reactor core isolation cooling, etc. Note that each of these system (residual heat removal, reactor core isolation cooling) comprise valves, dampers, motors and pumps having different configurations. During operation the monitoring of a first mode parameter (e.g., reactor core isolation cooling) is interrupted when a monitored second mode parameter (e.g., residual heat removal) interpreted through logic notifies the operator that an abnormal condition exists. The operator is then prompted to manually press a pushscreen button to change the method of operation of system from monitoring of the first mode to monitoring of the second mode. No standby mode exists, other than the time required for the operator to switch the modes.

The 102 rejection of Paper no. 10 has been incorporated below, but modified to include newly added claims 26-30.

Art Unit: 3641

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1, 2, 5 and 29 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

a. Claim 2 - it appears that to be consistent with the intent of applicant's invention the second mode must also be associated with a nuclear power plant system also. Thus the switching of the modes in claim 1 from a first mode to a second mode is indefinite based upon the limitation of claim 2.

b. Claims 5 and 29 there is no indication of what constitutes a plant permissive. That is they (plant permissives) are undefined in the claim language and the specification. Accordingly, the meets and bounds of the claim are vague and indefinite.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Art Unit: 3641

6. Claims 1-5 and 26-29 are rejected under 35 U.S.C. 102(b) as being anticipated by the admitted prior art (see specification page 2, paragraphs 5+).

Applicant sets forth that it is known in the art to monitor emergency cooling systems (i.e., core cooling/flooder systems). Note these systems comprise various valves, pumps, etc.

Applicant further admits that in the event of an unsafe condition the plant automatically effects a remedial action. That is the system switches from a normal mode of operation (first mode) to an emergency mode of operation (second mode) without going to standby.

7. Claims 1-6 and 26-30 are rejected under 35 U.S.C. 102(b) as being anticipated by Hench et al (4,421,716).

As set forth above Hench discloses a safety monitoring system capable of meeting applicant's claimed inventive concept.

Referring to figure 3 Hench discloses a method of operating a nuclear reactor power plant system in a first mode and switching from a first mode to a second mode without going to standby. These modes 1-6 are set forth on the display panel of figure 3, the modes comprising residual heat removal, reactor core isolation cooling, etc. Note that each of these system (residual heat removal, reactor core isolation cooling) comprise valves, dampers, motors and pumps having different configurations. During operation the monitoring of a first mode parameter (e.g., reactor core isolation cooling) is interrupted when a monitored second mode parameter (e.g., residual heat removal) interpreted through logic notifies the operator that an abnormal condition exists. The operator is then prompted to manually press a pushscreen button

Art Unit: 3641

to change the method of operation of system from monitoring of the first mode to monitoring of the second mode. No standby mode exists, other than the time required for the operator to switch the modes.

The system of Hench further sets forth a fail safe logic wherein the mode of operation is automatically changed on the display screen without going to a standby mode in the event of a selected plant variable out of limit.

While patent drawings are not drawn to scale, relationships clearly shown in the drawings of a reference patent cannot be disregarded in determining the patentability of claims. See In re Mraz, 59 CCPA 866, 455 F.2d 1069, 173 USPQ 25 (1972).

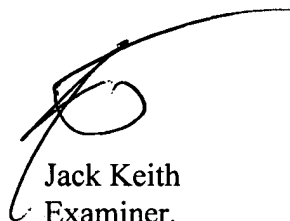
### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jack Keith whose telephone number is (703) 306-5752. The examiner can normally be reached on Monday through Friday from 7:00 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Carone, can be reached on (703) 306-4198. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-7687.

Art Unit: 3641

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1113.

A handwritten signature in black ink, consisting of a large, stylized 'J' followed by a circular flourish and a trailing line.

Jack Keith  
Examiner,  
Art Unit 3641

jwk

July 15, 2003